

Extension Poles for Powder-Actuated Tools

The Problem

Using powder-actuated fastening tools (PATs) for overhead work may lead to serious shoulder, arm, and hand injuries.

You work with your arms above your shoulders, an awkward position that may cause sore muscles and joints. Sometimes you have to hold this difficult position for a long time, or repeat the position over and over during your shift. This can cause fatigue and eventually lead to arm and shoulder problems like bursitis or rotator cuff tendinitis.

The recoil shock transmitted from the tool to your hand, arm, and shoulder put you at even greater risk of injury. Also, when you shoot fasteners at ceiling height you must work from a ladder, scaffold, or power lift, which have their own hazards.

Problem: Using PAT overhead



Solution: PAT with modular extension



One Solution

Use an **extension pole** for overhead work. This is a fixed height or modular pole attached to the powder-actuated tool. Using the extension, the tool is entirely out of your hand. All you have to do is squeeze the trigger.

You no longer need to raise your arms above your shoulders and hold them there to work on the ceiling. The extension does it for you.

The extension lets you keep a more neutral body posture. Your arms are closer to your

body and below your shoulders. This cuts down on the risk of injury to your shoulders, arms, and hands. There is also less recoil shock directed to your shoulders and neck. In addition, you can work on the ground rather than using a ladder, scaffold, or lift.

How It Works

The powder-actuated tool attaches to the top of the pole. A hand trigger (like a motorcycle brake) is attached to the bottom of the pole. You need only squeeze the trigger to operate the tool.

The extension pole can be either fixed height or adjustable. Lengths of available extensions range from 3 to 18 feet, though poles longer than 8 feet may be too difficult to position and control. The gun must be held tight to the substrate at a 90-degree angle until the firing is complete.

Benefits for the Worker and Employer

Workers have less chance of developing a shoulder, arm, and hand injury. With the tool attached to the pole, you can keep your arms below your shoulders. You will also feel less recoil shock at your shoulder. Moreover, with the gun further from your head, the noise exposure will be lower. Using the pole will also keep your eyes and face further from the concrete dust and debris. You do still need to look up to position the shot, which puts some strain on your neck.

Productivity may improve when there is less setup time using the tool extension, because there are no are no ladders, scaffolds, or lifts needed.

Approximate Cost

A modular pole assembly costs from \$300–400. However, if ladders, scaffolds, or lifts were rented for this work in the past, you will no longer have this cost.

For More Information

- Products related to this solution are described at www.cpwr.com/simple.html. Products also may be found on the internet using the following search terms: (PAT manufacturer) + “pole tool.”
- Local contractor tool and equipment suppliers or rental companies may be another source of information on products.
- For general information on this solution, check www.cpwrconstructionsolutions.org and www.elcosh.org.